



PROCARSA, S.A. DE C.V.

**CERTIFICADO DE CALIDAD
DE PRUEBAS FISICAS-QUIMICAS**

QUALITY CERTIFICATE OF TEST PHYSICALS-CHEMICAL

CLIENTE: CUSTOMER:	TUCUYA	NUMERO NUMBER	P11N-53576-2002
PEDIDO CLIENTE / P.O.	9874	FECHA DATE	NOVIEMBRE 25, 2002
PARTIDA (S)	32944-40 / 38269-20		

DIAMETRO: 14" ESPESOR DE PARED WALL THICKNESS GRADO: ASTM A53-B PRESSION HIDROSTATICA: 79 Kg/cm² 1120 PSI

PRUEBAS DE TENSION

TENSILE TEST

CHEMICAL ANALYSIS PERCENT WEIGHT

NUM PROBLETA DESCRIPTION	COLADA HEAT	LIMITE ELASTICO YIELD STRENGTH (#211)	ULTIMA TENSION TENSILE STRENGTH (#211)	% ELONG. %	LEBUT 1.875	C	Mn	P	S	Cb	V	Ti	Si	Ca	Al	Ca	Cr	Ni	Mo	N	Ceq	
1-8 Tc	121135	51 477	64 482	42	0.80	0.137	0.85	0.017	0.007	--	--	--	0.175	0.012	0.035	0.0003	0.019	0.028	--	--	--	
16-2 Tc	121136	55 950	64 071	38	0.87	0.143	0.83	0.017	0.009	--	--	--	0.176	0.016	0.039	0.0005	0.017	0.029	--	--	--	
20-16 Tc	121170	56 928	64 208	41	0.89	0.124	0.79	0.024	0.010	--	--	--	0.166	0.015	0.035	0.00023	0.011	0.025	--	--	--	
4-6B Tc	121171	54 571	62 475	41	0.87	0.137	0.81	0.020	0.008	--	--	--	0.202	0.014	0.030	0.00025	0.019	0.029	--	--	--	
25-8 Tc	121172	58 848	66 919	40	0.88	0.135	0.81	0.012	0.010	--	--	--	0.212	0.014	0.042	0.00028	0.020	0.023	--	--	--	
28-1 Tc	121173	54 130	73 317	42	0.85	0.143	0.82	0.014	0.009	--	--	--	0.212	0.013	0.036	0.00031	0.024	0.032	--	--	--	
6-8 Tc	125441	54 730	70 024	37	0.82	0.160	1.05	0.020	0.008	--	--	--	0.187	0.014	0.044	0.00018	0.023	0.028	--	--	--	
13-14 Tc	221152	54 448	64 500	42	0.84	0.139	0.81	0.015	0.006	--	--	--	0.198	0.011	0.038	0.00028	0.016	0.022	--	--	--	
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CERTIFICAMOS QUE LA TUBERIA AQUI DESCRITA CUMPLE Y HA SIDO FABRICADA, MUESTREADA, PROBADA E INSPECCIONADA DE ACUERDO CON LOS REQUISITOS APLICABLES DE LA ESPECIFICACION:

WE CERTIFY THE PIPE ABOVE MENTIONED ACCOMPLISH AND HAS BEEN MANUFACTURED, SAMPLED, TESTED AND INSPECTED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF SPECIFICATIONS:

ASTM A53-B -99

ING. FERNANDO OSORIO PEREZ

GERENTE DE ASESURAMIENTO DE CALIDAD
QUALITY ASSURANCE MANAGER